

commodore



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To: Distribution*

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SUBJECT: DIFFERENCE IN PAL AND NTSC VERSION OF 6567 USED
COMMODORE 64 AND MAX

These are two differences in the PAL and NTSC versions of the 6567.

1. Horizontal Positioning of Sprites

NTSC:

When positioning Sprites in the horizontal, the NTSC version uses all 512 possible positions (0 thru 511). Therefore, when moving a Sprite smoothly on a screen from the left, the position is usually incremented from 487 through 511 to 22. This will smoothly move an object onto the screen.

PAL:

In the PAL version, positions 504 through 511 do not exist due to timing differences in the two television standards. Therefore, in order to smoothly move a Sprite onto the screen from the left, the same algorithm used in NTSC can be used except that the counts should proceed from 479 through 503 to 22.

2. Number of Vertical Lines

NTSC:

The NTSC system is based on 262 lines per screen at a 60Hz repetition rate.

PAL:

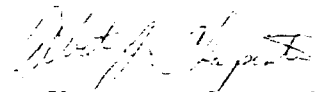
The PAL system is based on 312 lines per screen at a 50Hz repetition rate.

Y coordinate positioning of Sprites is the same for both systems.

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These two differences are easily accommodated in software by determining what television system the software is running. This can be accomplished by setting the raster compare interrupt to 311 in the 6567 and determining by checking if the interrupt flag gets set. If the flag gets set, then the PAL system is being used. If not, the NTSC system attributes should be followed.



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